

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

Claims 1-33 (cancelled)

34. (currently amended) A device for arc welding fasteners to a coated sheet metal structure comprising:

a welding head configured to hold the fasteners;

a power supply to supply electrical energy to the fastener; [[and]]

a mechanism for moving the welding head relative to the sheet metal structure, wherein the mechanism is configured to drive the fastener in an oscillating motion about a lengthwise axis of the fastener;

a holder provided to accommodate the fastener to be welded, wherein the holder is coupled to a drive lever having a radial segment moveable from a first position to a second position between two mutually opposed coils.

35. (cancelled)

36. (previously presented) The device according to Claim 34 wherein the welding head comprises a magnetic drive to generate oscillating motion about the lengthwise axis.

37. (cancelled)

38. (currently amended) ~~The device according to Claim 35~~ A device for arc welding fasteners to a coated sheet metal structure comprising:

a welding head configured to hold the fasteners;

a power supply to supply electrical energy to the fastener;

a mechanism for moving the welding head relative to the sheet metal structure, wherein the mechanism is configured to drive the fastener in an oscillating motion about a lengthwise axis of the fastener; and

a holder provided to accommodate the fastener to be welded,
wherein the holder is coupled to an eccentric drive to generate the oscillating motion about the lengthwise axis.

39. (previously presented) The device according to Claim 35 wherein the holder is moveable in a first and second direction relative to the structure.

40. (previously presented) The device according to Claim 34 further comprising a linear drive coupled to the weld head.

41. (previously presented) The device according to Claim 34 wherein a weld head defines an opening which is configured to be connected to a source of one of vacuum or compressed air.

42. (previously presented) The device according to Claim 34 further comprising a electro-magnet configured to generate a magnetic field to deflect an electronic arc set up between the fastener and the structure on a closed path about a lengthwise axis of the fastener.

43. (previously presented) A device for arc welding a fastener to a coated sheet metal structure comprising:

a welding head configured to hold the fastener;

a power supply configured to supply electrical energy to the fastener; and

a means for moving the fastener relative to the sheet metal to as to cause the fastener to fracture the coating.

44. (previously presented) The device according to Claim 43 comprising a means for oscillating the fastener about a longitudinal axis of the fastener.

45. (cancelled)

46. (previously presented) The device according to Claim 43 comprising a means for applying a cleaning current so as to produce a cleaning arc between the fastener and the structure.

47. (previously presented) The device according to Claim 43 comprising a means for applying a welding current between the fastener and the structure.

48. (previously presented) The device according to Claim 43 comprising a means for supplying one of a vacuum or air pressure to the fastener.

49. (previously presented) The device according to Claim 46 comprising a means for generating a magnetic field to deflect the cleaning arc.